

Amendments to the Specification:

Page 1, amend paragraph [0003] to read as follows:

[0003] Conventionally, there is no business entity performing electric power supply services. Therefore, it has been merely the task of each electric power company to predict electric power demand in each territory for performing electric power supply control supply control. For instance, prediction has been performed for electric power demand for the next day or week or a predetermined period on the basis of a weather report, the day of the week or a past record value in the same season, for effecting the necessary electric power supply control. A technique relating to electric power demand prediction has been disclosed in Japanese Patent Application Laid-Open No. Heisei 11-346438. The above-identified publication discloses a method for automatically predicting the demand for electric power in a central load dispatching and liaison office. The publication also discusses a prediction method which is generally applicable for various prediction models, such as a feedback type network, neural network and so forth.

Page 2, amend paragraph [0004] to read as follows:

[0004] The techniques disclosed in the above-identified publication are not directed to electric power demand prediction and control related to liberalization of the power supply. This is not satisfactory in the liberalized environment of a power supply. Particularly, under the liberalized environment, electric power supply which is satisfactory both for both the energy consumers and electric power supplier or electric power company cannot be realized unless more precise and more careful prediction and control are performed. Especially, when a business entity of an

electric power supply service supplies power under contract with various energy consumers, proper electric power demand prediction becomes an important task.

Page 5, amend paragraph [0009] to read as follows:

[0009] In the preferred construction, the demand prediction service center may perform prediction of the demanded power using demanded power prediction data held by the electric power supplier or the database of an external organization in addition to the power demand and supply record data. The demand prediction service center may cumulatively store demanded prediction data for the electric power supplier in a customer data file and make reference to the customer data ~~file~~file upon demand prediction. The demand prediction service center may be a predicting portion which performs prediction of demanded power on the basis of reception of a load survey data or distribution line measurement data of the electric power supplier or a result of cluster analysis of a load curve record value. The charge processing portion to the electric power supplier in the demand prediction service center may be a charge processing portion determining a charge to a customer on the basis of at least one of precision of prediction, size of geographic area, length of prediction period, time interval of prediction per se, and size of electric power variation amount in the load curve in a prediction time zone.

Page 6, amend paragraph [0010] to read as follows:

[0010] The present invention will be understood more fully from the detailed description given hereinafter and from the accompanying drawings of the ~~preferred~~preferred embodiment of the present invention, which, however, should

not be taken to be limitative to the invention, but are provided only for explanation and understanding of the principles of the invention.

Page 8, amend paragraph [0023] to read as follows:

[0023] Fig. 1 is a block diagram showing the overall construction of a demand prediction service system according to the present invention. The reference numeral 10 denotes an electric power demand prediction service center (which may also be referred to as an electric power demand prediction business entity). The construction of the electric power demand prediction service center will be discussed later. The electric power supply business entities include those identified by PSa to PSn. DBa to DBn identify databases respectively held by the electric power supply business entities PSa to PSn, in which data necessary for demand prediction is stored. Thus, among data stored in each database, necessary data for predicting electric power demand is provided to the demand prediction service center 10. Among data stored in the database, there is prediction data predicted by the electric power supply business entity independently. Then, such prediction data is ~~configured~~ configured to be used by the service center as basic data.

Page 9, amend paragraph [0024] to read as follows:

[0024] PSn (n = a to n) identifies the electric power supply business entity 12, including electric power companies, retail sellers of electric power, such as electric power service business entities, which have a contract with the electric power company or, other electric power supply business entity. Irrespective of the scale of the business entities, the electric power supply business entity, controlling the supply of power depending upon predicted demand of the electric power, is a

target of the service. The electric power supply business entity 12 includes a database 120 (DBn). The reference numeral 16 denotes energy consumers (L). To the electric power supply business entity PSa, an energy consumer group 16a is connected for receiving electric power in accordance with a given contract. The reference numeral 16b denotes an energy consumer group receiving electric power from the electric power supply business entity PSb. Similarly, the reference numeral 16n denotes an energy consumer group receiving service of electric power from the electric power supply business entity PSn. The reference numeral 18, denotes a communication circuit, such as the internet, to be used for sending a request for electric power demand prediction, providing data, providing the result of a prediction, delivery of a bill for charges, other demands and so forth between the electric power supplier and the electric power demand prediction service center 10. For example, in the case of entity PSa, 20a represents a transmission channel for delivery of prediction result data to the entity PSa and ~~20b~~ 22a represents a transmission channel for sending data and a request for prediction of demand and other requests from the entity PSa to the service center 10. Similarly, signal lines 20b to 20n and 22b to 22n are provided on channels to be used for communication between respectively corresponding electric power suppliers and the service center 10.

Page 10, amend paragraph [0026] to read as follows:

[0026]        Fig. 2 shows the construction of a demand prediction service center 10, which is constructed with a microcomputer and so forth. The reference numeral 38 denotes a customer information authentication and management portion, which receives signals 22a to 22n from the customer (in this case, electric power supplier), performs authentication by checking whether the customer is an

authorized customer under contract, determines the contract condition and so forth, on the basis of a password or the like input by the customer, and performs management processing using a customer information management file 42-by ~~updating customer data in preparation for the next request for prediction.~~ Reference numeral 36 designates a customer data management portion for processing/managing data provided from the customer for prediction. The updated result is stored in customer data file 48.

Page 13, amend paragraph [0029] to read as follows:

Fig. 3 is a block diagram showing one example of a construction on the side of the electric power supplier. Fig. 3 shows an example of a PSa. It should be noted that the construction for each individual electric power supplier is not necessarily the same as that of the PSa as illustrated. Each electric power supplier will often have its own database. As shown in Fig. 3, a value representing an amount of electric power is provided by the device 52 of the end customer (energy consumer) and is transmitted to the database of the electric power supplier through a communication circuit 54. On the other hand, the ~~reference~~-reference numeral 60 denotes a distribution transformer feeder transmission measuring device connected to the power supplier side through a communication circuit 62 for inputting a measured value. On the power supplier side, the measured value is cumulatively stored in the database (e.g. DBa) of the power supplier through the communication processing portion 56.

Page 14, amend paragraph [0030] to read as follows:

[0030] The reference numeral 58 denotes a customer demand cluster analyzing portion, which receives an input signal 66, such as a load curve record value measured by the customer or the general information of the customer, to perform an analysis. A signal 67 indicative of the result of analysis is input and stored in the database 42-120 (DBa), in case that the customer does not have measurement values, load estimation signal 69 calculated in load estimating portion 64 based on general information signal 68 from estimated target customers or the result of cluster analysis is input to database 120 (DBa) and stored therein. Thus, the data base on the side of the power supplier not only holds the measured data per se as a data base, but also stores the result of analysis on the side of the customer. On the other hand, for the customer having no measuring device, a result estimated from general information is stored in the database. As set forth above, the database DBa, for example, is unique for the customer. A predicting operation is performed in the prediction service center by effectively using data stored, as set forth above, for further precise prediction. Data necessary for prediction from the data of the database DBa is fed to the demand prediction service center 10 shown in Fig. 1 to receive the predicted result, thereby to perform power generation control.

Page 16, amend paragraph [0033] to read as follows:

[0033] Fig. 5 is a process flowchart of the processing in the service center 10 in the case where a predicting operation is performed according to a request for a prediction. At step S12 (e.g. on line 20a), authentication is performed to determine whether the power supplier requesting a prediction is authorized under contract or not by checking the password or the like. Also, at step S12, the content of the contract is also checked for the electric power supplier for which authentication

is successful. Next, at step S14, the condition of demand prediction is checked. For example, a check is performed for the period of the prediction under contract, the required precision, the necessary data for the required precision and so forth as the condition for prediction. Then, at step S16, a check is performed to determine whether data is sufficient for making a prediction satisfying the demand of the power supplier. If the conditions set forth above are satisfied, the predicting operation is performed by selecting a prediction method among a plurality of prediction methods or selection of a prediction method is performed at step S18. Namely, in the selection at step S18, whether the required precision of prediction can be achieved by only correction of the existing prediction pattern, by complicated converging calculation or so forth adapting to demand of the customer is determined. Then, at step-20 S20, a particular predicting operation is performed.

Page 18, amend paragraph [0036] to read as follows:

On the other hand, if a judgment is made that data is lacking for the predicting operation, which is checked at step S16, the missing data is obtained from the customer (power supplier) at step S30. On the other hand, at step S32, a judgment is made to determine whether data taken from the external organization can be used for prediction or not. If the data obtained from the external organization can be used, a check is performed to determine whether all data necessary for a predicting operation has been obtained at step S36. If a judgment is made that all necessary data has been collected, a predicting operation is performed at step S18 and subsequent steps. Correction for precision or so forth to be performed at step S38 is effected when the demanded precision of the prediction data cannot be obtained by data obtained from the external database. In such a case, a predicting operation is

executed with correction of the precision to the level to be achieved by the given data or correction of the prediction period. At step S32, when judgment is made that the already obtained external data is not ~~useful~~ useful, data is again obtained ~~from~~ from the external database at step S34. Of course, such an effort should be taken into account during the accounting process.

Page 23, amend paragraph [0044] to read as follows:

Also, in the charge calculation process, consideration will be given to ~~made~~ for the case where a charge depends upon the precision level of the prediction, namely a higher precision will result in a higher charge, or where prediction can be made simply by modification of the prediction data provided by the power supplier. Also, when the load prediction pattern is similar to that of other power suppliers, it is possible to perform a correcting prediction based thereon. By making reference to the prediction pattern of a plurality of power suppliers, prediction data with a higher precision may be provided.